STATEMENT OF CONSIDERATIONS

REQUEST BY STONE & WEBSTER FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS UNDER AN NREL SUBCONTRACT NO. ZCG-6-15143-01, W(A)-96-006, CH-0898 AND FOR LARGE BUSINESS LOWER-TIER SUBCONTRACTS THEREUNDER

Stone & Webster Corporation has petitioned for an Advance Waiver of Patent Rights under the above-identified National Renewable Energy Laboratory (NREL) subcontract and under lower tier subcontracts entered into thereunder with parties who do not qualify for treatment under Public Law 96-517, as amended, or National Laboratories. NREL is operated by Midwest Research Institute (MRI) under the prime contract number DE-AC02-83CH10093.

The scope of the subcontract is to prepare a feasibility study for economical conversion of rice straw to ethanol near Gridley, California. The ultimate goal of this project is to develop a commercially viable process to produce fuel ethanol from rice straw and to integrate the ethanol process with other technologies that will allow a facility to produce ethanol economically and without government subsidies, while operating without detriment to the environment. Success of this project is expected to lead directly to the construction of a large-scale ethanol production demonstration facility in the United States.

The feasibility study will comprise two phases. Phase I, to take about four months, will include performing an initial screening of the technical and economic feasibility. Phase II will be for pilot plant studies of the biomass to ethanol technology, including preparation of a preliminary engineering package, evaluating the economics and risk, and preparing an implementation plan to commercialize the process. Phase II is anticipated to take about 12 months.

The estimated cost of the subcontract is about \$2.28 million, with Stone & Webster contributing \$633,157, for about twenty-eight percent (28%) cost sharing. During the performance of this subcontract, it is anticipated that Stone & Webster will be working with several project partners, many of whom are expected to participate in the cost sharing. However, the requirements of the subcontract with NREL places the ultimate burden of cost sharing on Stone & Webster which must then negotiate and solicit cost participation from its lower tier subcontractors. Further, continuation of this waiver is contingent upon Stone & Webster maintaining, in aggregate, substantially the same cost sharing percentage over the course of the subcontract.

Stone & Webster is an international engineering and construction company with extensive experience in process engineering, which they have applied extensively to study site specific applications of technologies. In the biomass to ethanol conversion technology, Stone & Webster and Amoco Corporation have formed a partnership, SWAN Biomass Company, to commercialize Amoco's process for low cost conversion of biomass. The process offered by SWAN is based on extensive research and development by Amoco, NREL, Iogen Corporation, Purdue University and others. Considering the technical expertise of Stone & Webster and its partners and the significant investment in this technology including sizable cost sharing in this subcontract, it is reasonable to conclude that Stone & Webster will continue to develop and ultimately commercialize the results of this project.

As set out in the attached waiver petition and subsequent negotiations, Stone & Webster has requested domestic and foreign rights in the subject inventions of its employees and of its lower tier subcontractors who cannot elect title to subject inventions pursuant to Public Law 96-517, as amended, or National Laboratories. It is believed that this approach will minimize fragmentation of invention rights among the parties as the program progresses, expedite Stone & Webster's subcontract negotiations, and give Stone & Webster a mechanism to obtain meaningful cost sharing or other rights which will facilitate timely commercialization of the technology. The parties are expected to allocate title or other rights to inventions among themselves, considering the technology or cost sharing being brought into the project. In such cases, title may be waived directly to the lower tier subcontractor upon mutual agreement of Stone & Webster and the subcontractor involved. By accepting the terms of this waiver, lower tier subcontractors acknowledge their right to ask for a waiver and agree to the terms of this waiver and their subcontract.

Stone & Webster has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions comparable to those set out in 35 U.S.C. 203 and 204. Additionally, Stone & Webster has agreed to U.S. Competitiveness provisions and to background patent and data provisions which encourage commercialization of the technologies to the extent Stone & Webster and its lower tier subcontractors may themselves commercialize the technologies.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition as there are a variety of competitive technologies currently under development. Rather, the success of this subcontract can be expected to stimulate investment, not only in this technology, but also in other competing technologies as well.

Considering the foregoing, it is believed that granting the waiver will provide Stone & Webster with the necessary incentive to invest its resources in the commercialization of the results of the agreement in fashion which will make the subcontracts's benefits available to the public in the shortest practicable time. This waiver provides Stone & Webster with title in inventions made by Stone & Webster and all its lower tier subcontractors who agree to the waiver to Stone & Webster, except small businesses, universities and non-profit contractors subject to Public Law 96-517, as amended, and National Laboratories. Therefore, in view of the objectives and considerations set forth in 10 CFR Part 784, all which have been considered, it is recommended that the waiver described above be granted.

Thomas G. Anderson
Assistant Chief Counsel
Intellectual Property Law
Department

Date: 10/10/96

Daniel D. Park
Patent Attorney
Intellectual Property Law
Department

Date: 10/10/96

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope

described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the subcontract, where through such modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

CONCURRENCE:

John E. Ferrell, Director Office of Fuels Development

Date: $\frac{12/3/96}{}$

APPROVAL:

Paul Gottleb
Assistant General Counsel for
Technology Transfer and
Intellectual Property, HQ

Date: 12-6-96

(c)(3)(ix) U.S. Competitiveness

The Subcontractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Subcontractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event that DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. Subcontractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Subcontractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.

WAIVER ACTION - ABSTRACT

W(A)-96-006

REOUESTOR	SUBCONTRACT SCOPE OF WORK	RATIONALE FOR DECISION	DISPOSITION
Stone & Webster	Feasibility study for rice straw to ethanol	28% cost sharing	Recommend Approval